

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007315**Date Inspected:** 14-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** TOWER**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

**Outside Yard at Vertical Mill:**

The QA Inspector randomly observed that the vertical mill was idle and that no milling was being performed on Lift 1 South Tower Shaft. The QA Inspector did randomly observe several 1 ZPMC helper utilizing an angle grinder on pickups inside at 9M Diaphragm and below.

ZPMC Quality Representative Zhang Jiadi requested that the QA Inspector accept 3 fit lugs in Lift 1 South Tower Shaft per ZPMC approved Request For Information (RFI) No. ABF-RFI-001705R00 of 27-March-2009. The QA Inspector arrived at Lift 1 South Tower neither the ZPMC CWI present nor Mr. Zhang, knew the location or the Weld Joint (WJ) Numbers of any of the 3 fit lugs in question. The QA Inspector left Lift 1 South, researched relevant inspection documentation and informed Mr. Zhang that the 3 fit lugs were located at 33M Upper and Lower Diaphragms at WJ's SSD1-A164G/J-207, 210 and 211. These fit lugs were not accepted during the initial Visual Testing (VT) Inspection because they were not in compliance with the contract drawings. The QA Inspector verified that the 3 fit lugs were in compliance with ZPMC RFI ABF-RFI-001705R00 and accepted the above listed welds.

**Heavy Equipment Shop Bay 11:**

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## WELDING INSPECTION REPORT

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The QA Inspector performed a 100% Visual Inspection (VT) and 15% Magnetic Particle Testing (MT) of the welds attaching the 6 connection plates to the longitudinal stiffeners on Lift 3 East Skin Plate D per ZPMC NDT Notification Sheet 003073. There were several areas that required minor grinding which ZPMC welding personnel re-worked during the VT Inspection. There appeared to be no indications after the re-work and the QA Inspector accepted the above listed welds. ZPMC Quality Control (QC) informed the QA Inspector that the welds attaching the cross stiffeners to the 6 connection plates and to Lift 1 East Skin Plate D, also required VT at this time. The QA Inspector informed ZPMC QC that the cross stiffeners were not listed on ZPMC NDT Notification Sheet 003073 and that a new NDT Notification Sheet would have to be generated.

The QA Inspector attempted to perform a 100% Visual Inspection (VT) and 15% MT of the welds attaching the cross stiffeners to the 6 connection plates and to Lift 1 East Skin Plate D per ZPMC NDT Notification Sheet 003075. ZPMC NDT Notification Sheet 003075 also included the connection plate welds from ZPMC NDT Notification Sheet 003073. There were several areas that would require grinding and also some weld repair. The QA Inspector informed QC that these areas would have to be re-worked and that the welds attaching the cross stiffeners to the 6 connection plates and to Lift 1 East Skin Plate D were not ready for inspection at this time. ZPMC QC informed the QA Inspector that they would notify him when the re-work was completed.

The QA Inspector attempted to perform a follow up 100% VT and 15% MT of the welds attaching the cross stiffeners to the 6 connection plates and to Lift 1 East Skin Plate D per ZPMC NDT Notification Sheet 003075. There appeared to be no indications after the re-work and the QA Inspector accepted the above listed welds.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod 13482570045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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